

Appl. No. 10/570835  
Amtd. dated July 16, 2007  
Reply to Office Action of April 9, 2007

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1 – 4 (cancelled)

Claim 5 (currently amended): A storage system for extracorporeal storage of an organ, said storage system comprising:

an organ perfusion chamber; for storing an extracorporeal organ;

a vitality-preserving fluid circuit for circulating a vitality-preserving fluid into an said extracorporeal organ stored in said organ perfusion chamber, said vitality- preserving fluid circuit including a dialysate circulation system and a perfusate circulation system; wherein said vitality preserving fluid includes a dialysate circuit; and

a storage fluid that is stored in fills said organ perfusion chamber, wherein said storage fluid is a dialysate and wherein said organ perfusion chamber also serves as a reservoir for said dialysate, said dialysate being a component of and integrated into said dialysate circulation system that is added to said dialysate circuit as needed; and

a protective sack adapted to receive said organ in said organ perfusion chamber and to provide a barrier between said organ and said storage fluid;

wherein said organ is maintained by said storage fluid in a floating state in said organ perfusion chamber.

Claim 6 (previously presented): The system of claim 5 further comprising a temperature control device for controlling temperature of said storage fluid in said organ perfusion chamber.

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Claim 7 (previously presented): The system of claim 6, wherein said temperature control device is a heating mat.

Claim 8 (currently amended): The system of claim 6, said organ perfusion chamber having a wall and wherein the said temperature control device is integrated into said wall, the wall of the organ perfusion chamber.

Claim 9 (currently amended): The system of claim 8, wherein the temperature control device comprises temperature-control loops embedded with-a into said wall of said organ perfusion chamber.

Claim 10 (previously presented): The system of claim 5, wherein said organ perfusion chamber is hermetically sealed against fluid and pressure.

Claim 11 (new): The system of claim 5, wherein said protective sack is an impermeable plastic bag.